

We claim:

1. A wireless communication system, comprising:
a base station communication device including a carrier wave-based transmitter
and further including an ultrawideband receiver; and
a mobile communication device including a carrier wave-based receiver and
further including an ultrawideband transmitter;
wherein carrier wave communications are carried out in a forward channel from
said base station communication device to said mobile communication device, and
ultrawide band communications are carried out in a reverse channel from said mobile
device to said base station communication device.
2. The wireless communication system of claim 1, wherein said wireless
communication system comprises a radio system.
3. The wireless communication system of claim 1, wherein said wireless
communication system comprises a cellular telephone system.
4. The wireless communication system of claim 1, wherein said wireless
communication system comprises a satellite telephone system.
5. The wireless communication system of claim 1, wherein said wireless
communication system comprises a pager system.

6. The wireless communication system of claim 1, wherein said base station communication device is connected to a land line.

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7. A wireless communication system, comprising:

a base station communication device including a carrier wave-based transmitter capable of transmitting a carrier wave-based signal and further including an ultrawideband receiver capable of receiving an ultrawideband signal; and

a mobile communication device including a carrier wave-based receiver capable of receiving said carrier wave-based signal and further including an ultrawideband transmitter capable of transmitting said ultrawideband signal.

8. The wireless communication system of claim 7, wherein said wireless communication system comprises a radio system.

9. The wireless communication system of claim 7, wherein said wireless communication system comprises a cellular telephone system.

10. The wireless communication system of claim 7, wherein said wireless communication system comprises a satellite telephone system.

11. The wireless communication system of claim 7, wherein said wireless communication system comprises a pager system.

12. The wireless communication system of claim 7, wherein said base station communication device is connected to a land line.

13. A method of wireless communication, comprising the steps of:

carrying out communication from a base station communication device to a mobile communication device using a carrier wave-based transmission signal; and

carrying out communication from said mobile communication device to said base station communication device using an ultrawideband transmission pulse train.

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